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AUTHOR Tucker, Samuel J.
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ABSTRACT

The problem in this research was to select from a battery of 48 predictor variables, the variables which yielded the optimum estimate of college grade-point average at a Southern Black liberal arts college for men. The 48 predictor variables included measures of scholastic aptitude, reading ability, study habits, personality, and sociological characteristics. Purposes of the study were to establish a hierarchy of these variables in terms of the contributions to the prediction of academic success and to abstract a personality profile of the black male college achiever based on the significant predictors. The psychological and sociological profile that emerges from this study is that of the black male college achiever who is well organized and has a good opinion of his ability to handle academic tasks, both in general and with reference to study habits, his achievement drive, his writing, and mathematical ability. In addition, he comes from a small town and his father is likely to be an unskilled or semiskilled worker who has not finished high school. The black male achiever is also receiving, and probably requires, financial aid to pursue his college program. The data suggests that he is more concerned with succeeding in his career preparation than the student from a more well-to-do family who does not feel the financial strain during his college stay. (Author/ES)

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Multiple Predictors of Academic Success of the Black Male College Student

Samuel J. Tucker

University of Florida

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The problem of predicting academic success has been extensively explored (Lavin, 1965; Fishman and Pasanella, 1960). However, there is a shortage of data available on the prediction of academic success of Black students.

The lack of research on this topic has been called disturbing especially when the usual predictors of academic success are being criticized as an invalid criteria for the admission of minority students (Sampel and Seymour, 1971). Because of insufficient empirical knowledge about the relationship between the characteristics of black students and academic success, a number of investigators have indicated that there special programs developed to teach disadvantaged students are operating under a handicap (Dispenzieri, Giniger, Reichman and Levy, 1971).

The available research on the relationship between the characteristics of Black students and academic success is ambiguous, since findings vary from study to study (Clark and Plotkin, 1963; Stanley and Porter, 1967; Cleary, 1968; Green and Farguhar, 1965).

It is generally conceded that achievement in high school is the best single predictor of college success (Lavin, 1965; Stein, 1963; Donahue, Coombs and Travers, 1949). It has been assumed that some of the predictive ability might be enhanced if studies of personality and demographic variables were undertaken (Holland, 1959; Mayhew, 1965; Coleman, 1966; Cramer, 1966).

A review of the literature related to the prediction of academic achievement revealed that some investigators have attempted to predict

college success of students by using the results of aptitude and achievement tests, while excluding sociological and personality influences. Other investigators have attempted to predict college success by analyzing personality characteristics and ignoring aptitude and sociological variables. Investigators concern with demographic data and the social environment have eliminated or played down aptitude and individual personalities.

The Problem

The problem in this research was to select from a battery of 48 predictor variables the variables which yielded the optimum estimate of college grade-point average at a Southern Black liberal arts college for men. The forty-eight predictor variables included measures of scholastic aptitude, reading ability, study habits, personality, and sociological characteristics. A battery of most efficient predictors was selected in the order of their importance.

The following variables were examined for their possible significance in predicting grade-point average:

Variables

Grade-Point Average (Criterion Variable).

Predictor Variables

1. Scat - Verbal
2. Scat - Quantitative
3. Scat - Total

4. Iowa Reading Score
5. Study Habit Survey
6. Edwards 1 - Achievement
7. Edwards 2 - Deference
8. Edwards 3 - Order
9. Edwards 4 - Exhibition
10. Edwards 5 - Autonomy
11. Edwards 6 - Affiliation
12. Edwards 7 - Intraception
13. Edwards 8 - Succorance
14. Edwards 9 - Dominance
15. Edwards 10 - Abasement
16. Edwards 11 - Nurturance
17. Edwards 12 - Chance
18. Edwards 13 - Endurance
19. Edwards 14 - Heterosexuality
20. Edwards 15 - Aggression
21. Questionnaire - Age
22. Native vs. Foreign Born
23. Single vs. Married
24. Residence - Dormitory vs. Other
25. Population of Home Town
26. Head of House
27. Father's Education
28. Mother's Education
29. Parents' Marital Status
30. Number of Older Siblings
31. Number of Younger Siblings
32. Self-Scored -- Academic Ability
33. Self-Scored -- Drive to Achieve
34. Self-Scored -- Leadership Ability
35. Self-Scored -- Mathematical Ability
36. Self-Scored -- Popularity with Opposite Sex
37. Self-Scored -- Writing Ability
38. Earning Expectation
39. Father's Occupation Level
40. Mother -- Housewife vs. Work Away From Home
41. Estimated Parental Income
42. Encouragement for College
43. Financial Aid -- Family/Self
44. Financial Aid -- Loan/Aid
45. Years in College
46. Social Science vs. Physical Science
47. Number of Extra-Curricular Activities
48. Highest Degree Expected

The purpose of this study was three fold: first, to test the null hypothesis by postulating that all of the 48 predictor variables have a

correlation coefficient of zero with grade-point average. The second purpose was to establish a hierarchy of these variables in terms of the contributions to the prediction of academic success, while the third purpose was to abstract a personality profile of the Black male college achiever based on the significant predictors.

Method

Subjects

The sample consisted of 200 Black male students selected randomly from the roster of upperclass students attending Morehouse College. The sample included 95 sophomores, 46 juniors, and 59 seniors. Morehouse College is a private, predominantly black, all male liberal arts college located in Atlanta, Georgia, with an enrollment of approximately 1,000 students. The academic excellence of Morehouse graduates in impressive. One out of every ten Morehouse alumni has earned an academic or professional doctorate.

Procedure

The two hundred subjects who participated in this study were administered (Fall 1969) the Edwards Personal Preference Schedule, the Brown-Holtzman Survey of Study Habits and Attitudes, and a self-evaluation questionnaire prepared by the investigator. The grade-point averages for these subjects for the (1969) academic year were acquired from official college records. The entrance scores obtained on the School and College Ability Test (SCAT) and the Iowa Silent Reading Test were acquired from the Registrar and Director of the College Reading Center. The scores from these instruments and the coded questionnaire were converted to punch cards, and a step-wise multiple regression analysis was performed on an IBM computing system. All 48 predictors were regressed on grade-point averages.

Results

From the 48 predictor variables regressed on grade-point averages, 19 were found to be significant at the .05 level of confidence. The 19 predictor variables along with their zero-order correlations, multiple correlations and multiples F's are shown in descending order of significance in Table 1.

At step one The Brown-Holtzman Survey of Study Habits emerged as the best predictor of academic success. The second best predictor variable was the quantitative score of the School and College Ability Test. The quantitative score of the SCAT was not only the second best predictor but also had the second highest coefficient of correlation with grade-point average, ($r_{.} = .23$).

Insert Table 1 About Here

The third best predictor to emerge was a personality variable -- the need for deference which was measured by the Edwards Personal Preference Schedule. According to Edwards (1959), deference refers to the consistency of an individual to seek suggestions from others, to be interested in finding out what others think to follow instructions, and to do what is expected. Such an individual is willing to praise and accept the leadership of others. He conforms to customs and avoids the unconventional ($r = .11$).

A sociological variable, the occupation of the father, was found to be the fourth best predictor of grade-point average. The occupations were coded for the computer in descending order based on the classification used by the Census Bureau, i.e., professional persons, proprietor-managers, clerks, and kindred workers, skilled workers, semiskilled workers and

unskilled workers. The correlation between grade-point average and the father's occupation was found to have a negative value (r = -.11). The negative value of this variable indicated that the lower the level of occupation of the father the higher or better is the predictive value of this variable; i.e., for example, in this sample a boy whose father is a semi-skilled worker would be expected to perform better in college than the son of a professional man.

The better student is one who feels that he has better-than-average writing ability. The fifth best predictor variable was measured by the self-scored rating scale (writing ability, in item ten of the questionnaire) in which each subject rated himself above average, below average, or average in writing ability. This measure depends on the student's perception of his writing ability and does not measure writing ability per se (r = .20).

The better the student, the more extra-curricular activities he participates in. The sixth best predictor variable relative to student participation was measured by item number eighteen of the questionnaire (r = .05).

The next best predictor was a personality variable from Edwards scale (need for change), however, this variable had a negative value which indicated that the better student; i.e., the one having a higher grade-point average, is one who does not like change. According to Edwards' definition, he is more comfortable with daily routines and is reluctant to experiment and try new things (r = -.20).

The eighth best predictor was based on the findings of the self-scored rating scale (academic ability, in item ten of the questionnaire). The better student perceives himself as being above average in academic

ability. Apparently most of those who rated themselves above average were successful academically (r = .22).

Edwards' Need for Autonomy was the ninth best predictor. Table 1 shows that this variable also has a negative correlation with grade-point average (r = -.11). This correlation suggests that the better student is a highly socialized individual who is willing to conform, who is guided by what others may think, and who is reluctant to criticize those in authority. He has a tendency to accept responsibility and to fulfill his obligations.

The more successful student tends to feel that he has a greater-than-average drive to achieve. This self-perception, the tenth best predictor, was also measured by item number ten of the questionnaire, a self-scored rating item that requested the student to estimate his drive to achieve as above average, below average, or average (r = .23).

The next best predictor was Nurturance, a personality variable suggested by Edwards. However, the correlation was negative, indicating that the better student is not too concerned about others in a sympathetic manner. According to Edwards' definition, he is not willing to have others confide in him about their personal problems (r = -.04).

The twelfth best predictor was based on self-rating of popularity with the opposite sex. The negative correlation found here suggested that the better student feels that he is not popular with the members of the opposite sex. This variable emerges as a good predictor despite the fact that only six percent of the subjects rated themselves below average in heterosexual popularity (r = -.09).

In the investigation, foreign birth was a better predictor of high grade-point average in college than native birth. However, only four

foreign African subjects were in the sample (r = .15).

The father's education was the next best predictor of college grade-point average. This variable had a negative r value, thus indicating that the lower the educational level of the father the better is the son's academic performance (r = .10).

The better student is likely to have some financial aid, such as a scholarship or a loan. The fifteenth best predictor was based on an analysis of item 14 on the questionnaire, relating to the main source of funds for meeting college expenses. The majority of the students in the sample received aid from their parents as the main source of financial support (r = .11).

The next predictor was based on item number six of the questionnaire, in which the subject indicated the name of the town in which he finished high school. The data were analyzed by the population size of the town as reported in the World Almanac. The data suggested that the good student is more likely to have completed his education in a small town rather than in a large metropolitan area (r = -.06).

According to the results on Edwards' measure of Succorance, the seventeenth best predictor, the better student desires to have others help him when he is in trouble. He seeks encouragement from others and he desires them to be sympathetic and understanding about his personal problems (r = .02).

The student's estimate of his mathematical ability on the self-scored rating scale was the next significant predictor. This item suggested that the better student perceives himself as more proficient than average in mathematical ability (r = .15).

The last predictor of college grade-point average found to be statis-

tically significant was the verbal score of the SCAT. The verbal scale of the SCAT measures vocabulary and reading comprehension (r = .18). The correlations found lead to the rejection of the Null hypothesis.

Discussion

The psychological and sociological profile which emerges from this study is that of the Black male college achiever who is well organized and has a good opinion of his ability to handle academic tasks, both in general and with reference to such factors as his study habits, his achievement drive, his writing, and mathematical ability. Despite his positive self-confidence in mastering academic matters, he has a low opinion of his popularity with girls. He is relatively dependent and conforms to authority. Although he requires support from others, he shuns interpersonal involvement when he is required to provide emotional support for others. This individual would probably not be the student who would be involved in causes and fads, although he would be a participant in extracurricular activities just for the sake of furthering his social needs.

The Black male college achiever comes from a small town and his father is likely to be an unskilled or semiskilled worker who has not finished high school. The academic successful Black male college student is receiving, and probably requires, financial aid to pursue his college program. The data suggests that he is more concerned with succeeding in his career preparation than the student from a more well-to-do family who does not feel the financial strain during his college stay.

It should be noted that this study has several inherent limitations in terms of sample, variables, college environment, grading, generalizations

and a need for cross-validation.

Since only Black male subjects were used, a generaliztion of these findings from this sample cannot be made to other student populations.

Black male students like other human beings can be described as possessing a constellation of interacting variables. While groups of students may share all of these variables, no single constellation or pattern can characterize all of them. A limitation was imposed on the selection and the number of variables used from the infinite number of possible variables that are available.

Colleges vary in goals, roles, and reinforcing dimensions the same as individuals vary. Colleges may be described as social institutions set up by the society to achieve certain goals. To insure that the goals and roles are fulfilled, the college, like other social institutions, has a system of rewards and punishments that is utilized to reinforce behavior that is consistent with the roles and goals that the college was developed to achieve. Therefore, the reinforcing dimensions of the college must be recognized as a limitation.

The grades in a small college of this size are usually more subjectively influenced than in a large university where teachers may be more impersonal and objective. The variability in grading standards must be viewed as another limitation of these findings. In view of this, a generalization of these findings may not apply to large universities with a small black population.

There is a need for a cross-validation study at other types of institutions. It would be especially important to determine whether similar relationships of these variables exist at institutions with purposes and student body composition similar and different from those at Morehouse College.

Table 1

Zero-Order Correlations, Multiple Correlations and Multiple F's of the Best Predictors of College Grade-Point Averages

(N = 200 Males)

Predictor Variables	Zero-Order Correlations r	Cumulative Multiple Correlations[a] R^2	Multiple F
Study Habits	.30	.09	20.25**
SCAT-Quantitative	.23	.15	16.93**
Edwards-Deference	.14	.17	13.42**
Father's Occupation	-.11	.19	11.61**
Estimated Writing Ability	.20	.21	10.76**
Number of Extra-Curricular Activities	.05	.23	9.67*
Edwards-Change	-.20	.24	8.90*
Estimated Academic Ability	.22	.25	8.28*
Edwards-Autonomy	-.11	.[illegible]	7.90*
Estimated Drive to Achieve	.23	.28	7.56*
Edwards-Nurturance	-.04	.29	7.22*
Estimated-Heterosexual Popularity	-.09	.31	7.22*
Foreign Birth	.15	.32	6.97*
Father's Education	-.10	.32	6.34*
Financial Aid and Loan	.11	.33	6.07*
Home Town Population	-.06	.34	5.81*
Edwards-Succorance	.02	.34	5.55*
Estimated Mathematical Ability	.15	.35	5.33*
SCAT-Verbal	.18	.35	5.16*

[a]The multiple correlation beside each variable is that obtained for that variable in combination with all the variables listed above it (Draper, 1966).

** $p < .01$
* $P < .05$

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